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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,598

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EXAMINER

RICHARDSON, THOMAS W

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,598	Applicant(s) OGAWA, JUN	
	Examiner THOMAS RICHARDSON	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-21 are pending for examination.

Claims 1-21 are amended.

Claims 1-21 are rejected.

Response to Arguments

1. Applicant's arguments filed with regard to claims 1, 8, and 15 have been fully considered but they are not persuasive. Applicant argues that cited reference Cook (US 6 961 783) does not teach all of the limitations of the claims. Examiner disagrees, as explained further below.

2. Applicant argues that Cook does not teach identifying which of a private and a global network address a source address and a destination address is. Cook teaches that the DNS server identifies the client requesting the address, and also the address of the requested device (column 5, lines 1-34). The DNS server thus identifies the client's address, as it responds to the request, and the destination address, as it returns the address to the client if the client is approved to receive the address. As such, Cook teaches identifying the source and destination addresses in the system. Additionally, Cook teaches that the inside interface may be connected to a private network, while the outside interface may be connected to a public network such as the Internet (column 6, line 61 to column 7, line 7). Thus, the logic of the device may utilize both private and public network addresses. As such, the rejection of claims 1, 8, and 15 is maintained.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 8, and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6 961 783, Cook et al (previously cited).
5. As per claims 1, 8, and 15, Cook teaches a name/address translation device, method, and computer-readable medium recording a program (abstract) comprising:

an identifying unit configured to identify, when a query about an address corresponding to a name of a communication destination is received from a communication source, which of a private network address and a global network address a source address of the communication source is and which of a private network address and a global network address a destination address of the communication destination is (column 6, line 61 to column 7, line 7, where the device has multiple network interfaces, where the inside interface may be connected to a private network, while the outside interface is connected to a public network such as the Internet. In addition, each interface is fitted appropriately for communication with media, logic, and memory to communicate with the various media types. This logic and difference between internal and external private and public networks allows the device to distinguish between the network types of the source and destination by which interfaces the communications are associated with);

a judging unit configured to judge, based on a result of identification by the identifying unit, whether or not to allow to give a response including the address

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corresponding to the name of the communication destination to the communication source of the query (column 5, lines 23-34, where the system access list may require device verification in order to respond with the requested address. This verification serves to judge whether the requesting device is allowed access to the destination address); and

a sending unit configured to send the response to the communication source when the judging unit judges that it is allowable to give the response (column 5, lines 1-10, where the DNS server resolves the domain name into an IP address and forwards it to the requesting client).

Claim Rejections - 35 USC § 103

6. Claims rejected under 35 U.S.C. 103(a) as being unpatentable over US 6 961 783, Cook et al as applied to claims 1, 8, and 15 above, and further in view of US 2003/0172145, Nguyen.

7. As per claims 2, 9, and 16, Cook further teaches a searching unit configured to search for an address of the communication destination to be given to the communication source as a response to the query when the identifying unit identifies that the communication source belongs to the private network and that the communication destination belongs to the public network (column 5, lines 1-10, where the DNS server resolves the IP address of the requested domain name for a client requesting an Internet IP address. This, along with column 6, line 61 to column 7, line 7, where the device has multiple network interfaces, where the inside interface may be connected to a private network, while the outside interface is connected to a public

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network such as the Internet, shows that the client on a private address may request the public IP address of a domain name from the domain name server); and

a sending unit configured to send the response containing the address of the communication destination to the communication source when the searching unit searched the address of the communication destination, and rejecting the query when the identifying unit identifies that the communication source belongs to the second network and the communication destination belongs to the first network (column 5, lines 1-10, where the DNS server resolves the domain name into an IP address and forwards it to the requesting client, along with Figure 3, also column 7, lines 20-22, where the address is not returned if the source is not allowed to access the destination).

Cook does not expressly teach rejecting the query when it comes from a global network for a private network. Nguyen teaches a system for providing internet service comprising:

a sending unit sending a response to a query when the searching unit searches for a query, and to reject the query when the identifying information identifies that the communication source belongs to a global network and the communication destination belongs to a private network (paragraph 532, where the split DNS prevents internal host names and addresses from being revealed over the internet).

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a split DNS such as taught by Nguyen in a DNS system such as taught by Cook. Cook's system provides access control lists such that a DNS query may be rejected based on access rights. Nguyen's system splits the DNS response units such

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that external and internal addresses are preserved within their domains. Splitting domains such as taught by Nguyen would prove beneficial in that private addresses would not be sent over the global network, adding security (Nguyen, paragraph 532).

As per claims 3, 10, and 17, Cook further teaches the sending unit invalidates sending the response, if there is no application of which a use is permitted in a communication between the communication source and the communication destination when the identifying unit identifies that the communication source belongs to the private network and the communication destination belongs to the global network (column 7, lines 20-22, where the address is not returned if the source is not allowed to access the destination).

8. Claims 4-7, 11-14, and 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6 961 783, Cook et al and US 2003/0172145, Nguyen as applied to claims 2, 9, and 16 above, and further in view of US 7 093 288, Hydrie et al (previously cited).

9. As per claims 4, 11, and 18, neither Cook nor Nguyen expressly teach a system with firewall or packet filtering in conjunction with the DNS service. Hydrie teaches a system of network communication containing a packet filtering system and method comprising:

a notifying unit configured to notify, when a response containing a second terminal corresponding to the communication destination belonging to the second network is given to a first terminal corresponding to the communication source belonging to the first network, a routing device of passage information for letting a data

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pass through that are forwarded between the first terminal and the second terminal, the routing device receiving the data forwarded between the first network and the second network and letting only the data with its passage permitted pass through, and effecting an address translation between the first network and the second network (column 4, lines 25-40, where the filters are accessed by the controller, and thus the controller becomes aware of the passage rules, and either allows or denies communication between devices).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a method of packet filtering such as that taught by Hydrie in the system of Cook. Packet filtering allows a user to determine whether communication should be allowed between devices based on a desired rule set (Hydrie, abstract). This would have been beneficial in Cook's system, as it would have provided an additional layer of protection to deny communication between devices, which is not allowed by the access list.

10. As per claims 5, 12, and 19, Hydrie further teaches

wherein the notifying unit notifies the routing device of passage information containing a first network address used in the first network that is virtually assigned to the second terminal and a second network address that the second terminal uses on the second network, so that the routing device translates, when a data transmitted from the second terminal passes through, the second network address a source address included in the data into the first network address (column 4, lines 42-50 show the virtualization data, which includes a map of the virtual devices. This map contains

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information on the communication source and destination, and also contains translation information for translating the virtual addresses to real addresses), and

wherein the sending unit sends a response containing the first network address so that the first terminal adds the first network address as a destination address to a data addressed to the second terminal to transmit the data addressed to the second terminal, and that the routing device translates, when the data addressed to the second terminal passes through, translates, when the data addressed to the second terminal passes through, the destination address into the second network address (column 4, lines 60-64 show that the network mediator uses the mapped addresses contained in the virtualization data to convert the addresses and forwards the communication).

11. As per claims 6, 13, and 20, Hydrie further teaches the notifying unit notifies the routing device of the passage information further containing information about an application of which the utilization is permitted in the communication between the first terminal and the second terminal in order for the routing device to let only the data pass through which is based on the application of which the utilization is permitted between the first terminal and the second terminal (Hydrie teaches this limitation. Column 6, lines 40-50 show an example of the system working with multiple filters, where one filter restricts the communication between two devices to a particular protocol).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a method of packet filtering such as that taught by Hydrie in the system of Cook. Packet filtering allows a user to determine whether communication should be allowed between devices based on a desired rule set (Hydrie, abstract). This would

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have been beneficial in Cook's system, as it would have provided an additional layer of protection to deny communication between devices, which is not allowed by the access list. In particular, restricting access to a particular protocol would provide further security, as even with a connection, a device would not have full control over another device.

12. As per claims 7, 14, and 21, Hydrie further teaches wherein the notifying unit notifies, before the sending unit sends the address of the second terminal, the routing device of the passage information (Hydrie teaches this limitation. Column 4, lines 25-40 show that the passage information is maintained in the filter list, thus providing a stable source of the passage information which can be accessed at any time).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a method of packet filtering such as that taught by Hydrie in the system of Cook. Packet filtering allows a user to determine whether communication should be allowed between devices based on a desired rule set (Hydrie, abstract). This would have been beneficial in Cook's system, as it would have provided an additional layer of protection to deny communication between devices, which is not allowed by the access list.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THOMAS RICHARDSON whose telephone number is (571) 270-1191. The examiner can normally be reached on Monday through Thursday, 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444